ARROW POINT PARK (PWSNO 1280252)
SOURCE WATER ASSESSMENT REPORT

December 12, 2001

State of Idaho
Department of Environmental Quality

Under the Federal Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. The Idaho Department of Environmental Quality is completing the assessments for all Idaho public drinking water systems. The assessment for your particular drinking water source is based on a land use inventory within a 1,000 foot radius of your drinking water source, sensitivity factors associated with the source and characteristics associated with either your aquifer or the watershed in which you live.

This report, *Source Water Assessment for Arrow Point Park* describes the public drinking water system, the associated potential contaminant sources located within a 1,000' boundary around the drinking water source, and the susceptibility (risk) that may be associated with any associated potential contaminants. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this system. **The results should <u>not be</u> used as an absolute measure of risk and is not intended to undermine the confidence in your water system.**

The Arrow Point Park drinking water system consists of two wells. Because the wells are only about 80 feet apart, they are considered a well field drawing from the same source. The wells are located outside of the 100 year flood plain for Lake Coeur d'Alene, but are within 350 feet of the lake. A pressurized sewer line is buried in the access road adjacent to the wells.

In a susceptibility analysis DEQ conducted October 23, 2000, the wells were ranked at low risk for contamination from inorganic, synthetic organic and volatile organic chemical contamination and microbials.

The main water quality problem at Arrow Point Park has been occasional episodes of bacterial contamination apparently related to the distribution system. Nitrate has been detected in concentrations ranging from 0.092 to 0.136 mg/l in 1990, 1997 and January1998. It was not present in samples tested in December 1998 and this year. The Maximum Contaminant Level for nitrate is 10.0 mg/l. An initial water sample drawn when the first well was drilled in May 1990had a concentration of Iron (MCL= 0.30 mg/l) of 0.62 mg/l. The concentration apparently dropped with further pumping. A copy of the susceptibility analysis for your system along with a map showing any potential contaminant sources is included with this summary. Information regarding the potential contaminants within the 1000-foot boundary is summarized in Table 1.

Table 1.

SITE #	Source Description	Source of Information	Potential Contaminants
1	Highway 97	PWS File	Road Maintenance Chemicals (SOC, VOC)
2	Access Road/Sewer Line	PWS File	Microbial, Road Maintenance Chemicals (SOC, VOC)

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

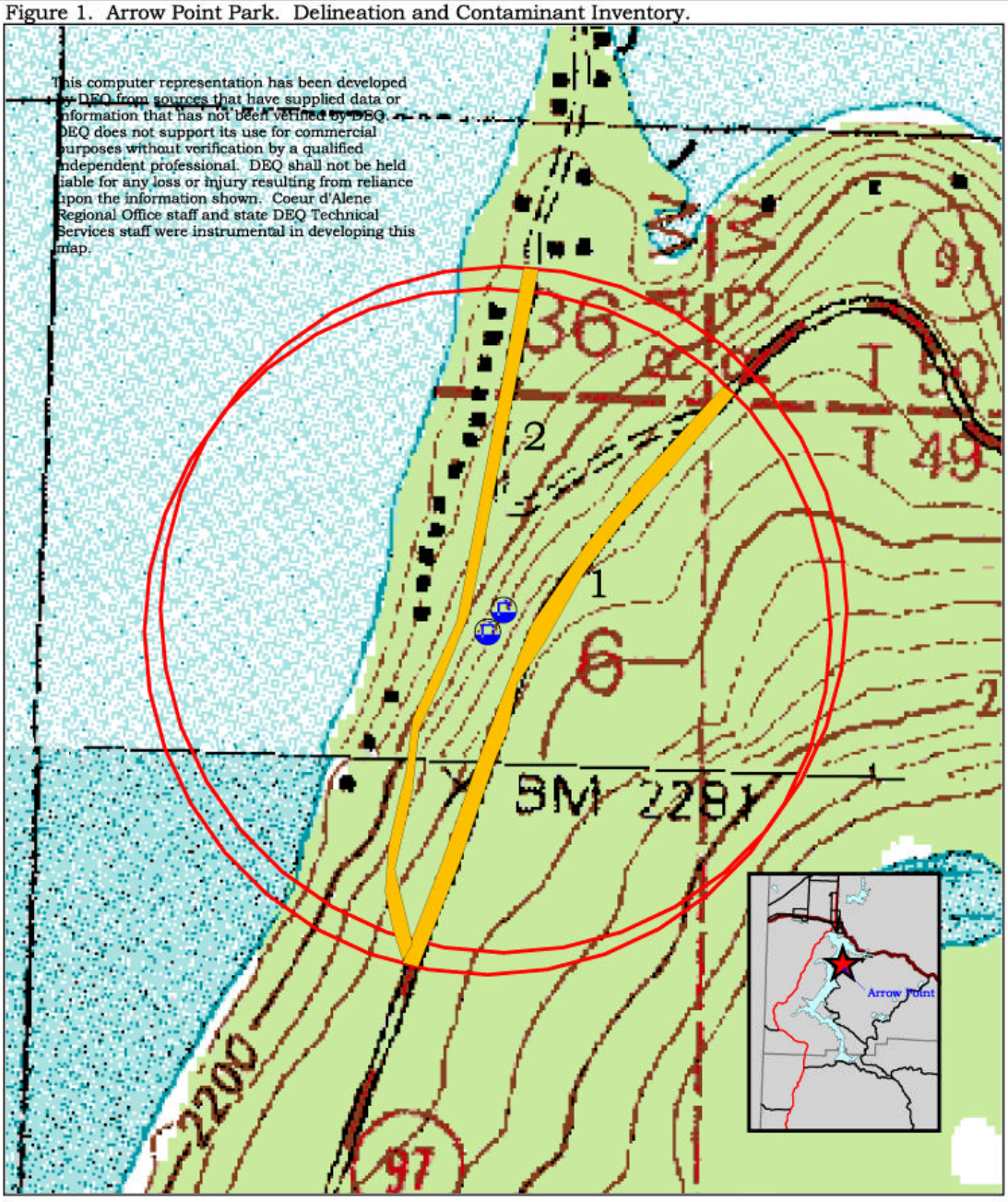
For Arrow Point Park, source water protection activities should focus on implementation of practices aimed at eliminating cross connections that may be responsible for the episodes microbial contamination seen in the distribution system. The system operator should take measures to ensure that herbicides used for weed control along the highway above the wells and the access road below them are not used within the delineated area for the well field. You may want to establish a dialog with the highway department to ensure that road maintenance activities do not have a negative impact on the wells. Source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

For assistance in developing source water protection strategies please contact Tony Davis at the Coeur d'Alene regional IDEQ office at 208-769-1422.

DEQ website:

http://www.deq.state.id.us

Figure 1. Arrow Point Park. Delineation and Contaminant Inventory.



Attachment A

Arrow Point Park
Susceptibility Analysis
Worksheet

Ground Water Susceptibility Report

Public Water System Name : **ARROW POINT PARK** Well# : **WELL 1**

Public Water System Number : **1280252** 10/24/00 8:18:19 AM

1. System Construction		SCORE			
Drill Date	5/4/90				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES	0			
Well meets IDWR construction standards	NO	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	YES	0			
Highest production 100 feet below static water level	YES	0			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		**1**			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	NO	2			
Vadose zone composed of gravel, fractured rock or unknown	NO	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	YES	0			
Total Hydrologic Score		**3**			
3. Potential Contaminant / Land Use - ZONE 1A		IOC Score	VOC Score	SOC Score	Microbial Score
Land Use Zone 1A	RANGELAND, WOODLAND, BASALT	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		**0**	**0**	**0**	**0**
Potential Contaminant / Land Use - ZONE 1B					
Contaminant sources present (Number of Sources)	YES	0	1	1	1
(Score = # Sources X 2) 8 Points Maximum		0	2	2	2
Sources of Class II or III leacheable contaminants or Microbials	YES	0	1	1	
4 Points Maximum		0	1	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		**0**	**3**	**3**	**2**
Cumulative Potential Contaminant / Land Use Score		**0**	**3**	**3**	**2**
4. Final Susceptibility Source Score		**4**	**5**	**5**	**5**
5. Final Well Ranking		Low	Low	Low	Low

Ground Water Susceptibility Report

Public Water System Name : **ARROW POINT PARK** Well# : **WELL 2**

Public Water System Number : **1280252** 10/24/00 8:18:19 AM

1. System Construction		SCORE
Drill Date	9/26/94	
Driller Log Available	YES	
Sanitary Survey (if yes, indicate date of last survey)	YES	0
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	YES	0
Highest production 100 feet below static water level	YES	0
Well located outside the 100 year flood plain	YES	0
Total System Construction Score		**1**

2. Hydrologic Sensitivity		
Soils are poorly to moderately drained	NO	2
Vadose zone composed of gravel, fractured rock or unknown	NO	0
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	YES	0
Total Hydrologic Score		**3**

3. Potential Contaminant / Land Use - ZONE 1A		Score	Score	Score	Score
Land Use Zone 1A	RANGELAND, WOODLAND, BASALT	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		**0**	**0**	**0**	**0**

Potential Contaminant / Land Use - ZONE 1B					
Contaminant sources present (Number of Sources)	YES	0	1	1	1
(Score = # Sources X 2) 8 Points Maximum		0	2	2	2
Sources of Class II or III leacheable contaminants or Microbials	YES	0	1	1	
4 Points Maximum		0	1	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		**0**	**3**	**3**	**2**
Cumulative Potential Contaminant / Land Use Score		**0**	**3**	**3**	**2**
4. Final Susceptibility Source Score		**4**	**5**	**5**	**5**
5. Final Well Ranking		Low	Low	Low	Low

POTENTIAL CONTAMINANT INVENTORY
LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund@ is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.